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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,162	12/11/2003	Bruce Michael Siebers	KCX-651 (18385)	5959

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COLE, ELIZABETH M	
ART UNIT	PAPER NUMBER
1782	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/733,162	SIEBERS ET AL.	
	Examiner	Art Unit	
	Elizabeth M. Cole	1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,16-21,23,25-53 and 55-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14, 16-21, 23, 25-53, 55-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claims 1-14, 16-21, 23, 25-53, 55-67 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a structure wherein the layers are thermally fused together using heated pins to form apertures wherein one or more layers may be thermally fusible, (see paragraph 0015), does not reasonably provide enablement for the structure as claimed comprising cellulosic fibers which is also thermally fusible The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make/use the invention commensurate in scope with these claims. The specification does not disclose an embodiment comprising only cellulosic fibers which is thermally fusible using hot pins. Cellulosic fibers are not thermally fusible.

2. Claims1-14, 16-21, 23, 25-53, 55-67 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: a fusible element is not set forth in the independent claims, but the claims recite that the apertures fuse adjacent cellulosic webs along the thickness of the absorbent structure. Cellulosic fibers are not thermally fusible so the claims as currently written are indefinite because to is not clear what elements are being fused.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-14, 18-19, 23, 25-30, 33-40, 42, 45-49, 65-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0066463 in view of Srinivasan et al, U.S Patent NO. 6,025,050 and Vinson et al, U.S. Patent No. 5,830,317.

5. EP '463 discloses a cleaning sheet comprising a plurality of plies of cellulosic material. An interlayer of an impermeable film can be placed between the cellulosic plies. See page 4, lines 32-34; page 5, lines 22-32. The layers can be joined by adhesive or thermal bonding. See page 8, lines 1-19. The plies of cellulosic material comprise a plurality of perforations. The perforations have a size of 0.01-1.2 mm. The perforations are distributed at a rate of 0.5-5 perforations per square centimeter. See page 9, lines 1-13. The apertures can extend through less than the entire thickness of the cleaning sheet. See page 6, lines 9-12. The perforations can extend from one or both sides of the cleaning sheet. See page 8, lines 28-32. One side of the cleaning sheet can comprise a plurality of abrasive structures such as fibers which are bonded to one of the cellulosic plies. Suitable materials for the abrasive fibers include polystyrene, polymethyl methacrylate and polyvinyl chloride. See page 10, lines 15-26. The cleaning sheet may be impregnated with various additives such as soap, detergent, disinfectants, skin treatments, etc. See page 3, lines 11-16. The size and depth of the perforations can be controlled to allow for a metered release of the added components. See page 3, lines 17-23.

6. The instant claims recite that the plurality of apertures are formed and arranged such that the apertures contribute to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness. Applicant's

specification teaches that to form apertures which contribute to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness that heated pins are used to form the perforations. See page 43, lines 23-25 of Applicant's specification. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins to perforate nonwoven fabrics in order to form an apertured fabric. With regard to the limitation that the apertures fuse adjacent cellulosic webs along the thickness of the absorbent structure, it is noted that EP '463 includes polymeric fibers one side of the cellulosic plies as well as impermeable film interlayers. Therefore, by employing hot pins to form the perforations as taught by Srinivasan, it is reasonable to expect that there would be at least some fusing between adjacent cellulosic webs. The claims do not recite a particular bond strength, bond continuity or degree of fusing.

7. While EP '463 teaches that the depth of the perforations can be controlled in order to allow for controlled release of the additive composition, EP '463 does not specifically teach that the perforations should extend less than about 50% of the

thickness of the cleaning sheet. However, since EP '463 does teach that the size, depth and distribution of the perforations is related to the controlled release of the active agents which are added to the cleaning sheet, it would have been obvious to one for ordinary skill in the art at the time the invention was made to have selected the particular depth of the perforations through the process of routine experimentation in order to arrive at a product which release the desired amount of additive.

8. EP '463 differs from the claimed invention because EP '463 does not teach the particularly claimed number of cellulosic plies. With regard to the number of plies, since the cellulosic plies are provided in order to provide softness and absorbency to the cleaning sheet, (page 5, lines 1-3; lines 22-32), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the appropriate number of plies through the process of routine experimentation in order to arrive at a cleaning sheeting having the optimum absorbency and softness.

9. EP '463 differs from the claimed invention because while EP '463 teaches employing cellulosic fibers generally, it is silent as to the particular type of cellulosic fibers and therefore it does not teach employing high yield cellulosic fibers as claimed in each independent claim and as the term is defined at page 5 of the specification. Vinson teaches at col. 2, lines 28-35, that high yield cellulosic fibers such as mechanical or chemi-mechanical pulps can be used to replace virgin chemical pulp fibers in order to reduce consumption of forest products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted high yield

fibers for the cellulosic fibers of EP '463, in order to reduce consumption of forest products.

10. Claims 1-14, 18-19, 23, 25-30, 33-40, 42, 45-49, 65-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0066463 in view of Currie et al, U.S. Patent No. 5,429,854 and Vinson et al, U.S. Patent No. 5,830,317.

11. EP '463 discloses a cleaning sheet comprising a plurality of plies of cellulosic material. An interlayer of an impermeable film can be placed between the cellulosic plies. See page 4, lines 32-34; page 5, lines 22-32. The layers can be joined by adhesive or thermal bonding. See page 8, lines 1-19. The plies of cellulosic material comprise a plurality of perforations. The perforations have a size of 0.01-1.2 mm. The perforations are distributed at a rate of 0.5-5 perforations per square centimeter. See page 9, lines 1-13. The apertures can extend through less than the entire thickness of the cleaning sheet. See page 6, lines 9-12. The perforations can extend from one or both sides of the cleaning sheet. See page 8, lines 28-32. One side of the cleaning sheet can comprise a plurality of abrasive structures such as fibers which are bonded to one of the cellulosic plies. Suitable materials for the abrasive fibers include polystyrene, polymethyl methacrylate and polyvinyl chloride. See page 10, lines 15-26. The cleaning sheet may be impregnated with various additives such as soap, detergent, disinfectants, skin treatments, etc. See page 3, lines 11-16. The size and depth of the perforations can be controlled to allow for a metered release of the added components. See page 3, lines 17-23.

12. The instant claims recite that the plurality of apertures are formed and arranged such that the apertures contribute to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness. Applicant's specification teaches that to form apertures which contribute to the structural integrity of the liquid absorbent structure in the direction of the absorbent structure's thickness that heated pins are used to form the perforations. See page 43, lines 23-25 of Applicant's specification. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of Currie that the use of hot pins improved the cleaning ability of the sheet. With regard to the limitation that the apertures fuse adjacent cellulosic webs along the thickness of the absorbent structure, it is noted that EP '463 includes polymeric fibers one side of the cellulosic plies as well as impermeable film interlayers. Therefore, by employing hot pins to form the perforations as taught by Currie, it is reasonable to expect that there would be at least some fusing between adjacent cellulosic webs. The claims do not recite a particular bond strength, bond continuity or degree of fusing.

13. While EP '463 teaches that the depth of the perforations can be controlled in order to allow for controlled release of the additive composition, EP '463 does not specifically teach that the perforations should extend less than about 50% of the thickness of the cleaning sheet. However, since EP '463 does teach that the size, depth and distribution of the perforations is related to the controlled release of the active agents which are added to the cleaning sheet, it would have been obvious to one for ordinary skill in the art at the time the invention was made to have selected the particular depth of the perforations through the process of routine experimentation in order to arrive at a product which release the desired amount of additive.

14. EP '463 differs from the claimed invention because EP '463 does not teach the particularly claimed number of cellulosic plies. With regard to the number of plies, since the cellulosic plies are provided in order to provide softness and absorbency to the cleaning sheet, (page 5, lines 1-3; lines 22-32), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the appropriate number of plies through the process of routine experimentation in order to arrive at a cleaning sheeting having the optimum absorbency and softness.

15. EP '463 differs from the claimed invention because while EP '463 teaches employing cellulosic fibers generally, it is silent as to the particular type of cellulosic fibers and therefore it does not teach employing high yield cellulosic fibers as claimed in each independent claim and as the term is defined at page 5 of the specification. Vinson teaches at col. 2, lines 28-35, that high yield cellulosic fibers such as mechanical or chemi-mechanical pulps can be used to replace virgin chemical pulp fibers in order to

reduce consumption of forest products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted high yield fibers for the cellulosic fibers of EP '463, in order to reduce consumption of forest products.

16. Claims 16-17, 20-21, 31-32, 41, 43-44, 50-53, 55-64, 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0066463 in view of Srinivasan et al, U.S Patent NO. 6,025,050 and Vinson et al, U.S. Patent No. 5,830,317, and further in view of EP 1212974.

17. EP '463 discloses a cleaning sheet asset forth above. EP '463 differs from the claimed invention because with regard to the abrasive structure, EP '463 does not teach that the abrasive structures comprise meltblown webs, as set forth in claims 20-21, 43-44, 52-64, 67, does not teach the particular types of nonwovens which make up the cellulosic plies as set forth in claims 16-17, 41,51, 53 and does not teach bonding by stitching as set forth in claims 31-32 and 50, but instead teaches adhesive or heat bonding.

18. EP '974 teaches that cleaning sheets which comprise a plurality of nonwoven layers can comprise meltblown webs, coforms, spunbondeds, carded web, as well as air laid and wet laid webs. Cellulosic layers can be used as the cleaning layers, while synthetic polymers can form the scrubbing layers. See paragraphs 0011 – 0026. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the particular types of nonwovens for the

abrasive layer and the cellulosic layers of EP '463, motivated by the teaching of EP '974 that such materials were recognized in the art as suitable for this purpose.

19. With regard to stitching, EP '463 teaches heat and/or adhesive bonding to unite the layers. EP '974 teaches that besides heat and adhesive bonding that stitching can also be used to bond the layers of the cleaning sheet together. See paragraph 0026. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed stitching rather than adhesive or thermal bonding to join the layers of the cleaning sheet of EP '463, motivated by the teaching of EP '974 that stitching was an art recognized equivalent means of joining layers in cleaning sheets.

20. Claims 16-17, 20-21, 31-32, 41, 43-44, 50-53, 55-64, 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0066463 in view of Currie et al, U.S. Patent No. 5,429,854 and Vinson et al, U.S. Patent No. 5,830,317, and further in view of EP 1212974.

21. EP '463 discloses a cleaning sheet as set forth above. EP '463 differs from the claimed invention because with regard to the abrasive structure, EP '463 does not teach that the abrasive structures comprise meltblown webs, as set forth in claims 20-21, 43-44, 52-64, 67, does not teach the particular types of nonwovens which make up the cellulosic plies as set forth in claims 16-17, 41,51, 53 and does not teach bonding by stitching as set forth in claims 31-32 and 50, but instead teaches adhesive or heat bonding.

22. EP '974 teaches that cleaning sheets which comprise a plurality of nonwoven layers can comprise meltblown webs, coforms, spunbondeds, carded web, as well as air laid and wet laid webs. Cellulosic layers can be used as the cleaning layers, while synthetic polymers can form the scrubbing layers. See paragraphs 0011 – 0026. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the particular types of nonwovens for the abrasive layer and the cellulosic layers of EP '463, motivated by the teaching of EP '974 that such materials were recognized in the art as suitable for this purpose.

23. With regard to stitching, EP '463 teaches heat and/or adhesive bonding to unite the layers. EP '974 teaches that besides heat and adhesive bonding that stitching can also be used to bond the layers of the cleaning sheet together. See paragraph 0026. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed stitching rather than adhesive or thermal bonding to join the layers of the cleaning sheet of EP '463, motivated by the teaching of EP '974 that stitching was an art recognized equivalent means of joining layers in cleaning sheets.

24. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

25. Claims 1-14, 16-21, 23, 25-53, 55-67 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-50 of copending Application No. 10/745,327 in view of EP 066463 in view of Srinivasan et al, U.S Patent NO. 6,025,050 , Currie et al, U.S. Patent No. 5,429,854 and Vinson et al, U.S. Patent No. 5,830,317. '327 discloses a wiping product comprising a plurality of plies wherein some of the plies comprise cellulosic pulp fibers. '327 differs from the claimed invention because it does not teach perforating the plies. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc., It would have been obvious to one of ordinary skill in the art at the time the invention was made to have perforated the layers of US '327, motivated by the expectation that this would allow the controlled release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing cellulosic fibers, it does not teach employing high yield cellulosic fibers. Vinson teaches at col. 2, lines 28-35, that high yield cellulosic fibers such as mechanical or chemi-mechanical pulps can be used to replace virgin chemical pulp fibers in order to reduce consumption of forest products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted high yield fibers for the cellulosic fibers of EP '463, in order to reduce consumption of forest products.

This is a provisional obviousness-type double patenting rejection.

26. Claims 1-14, 16-21, 23, 25-53, 55-67 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-91 of copending Application No. 10/733,169 in view of EP 066463 . in view of Srinivasan et al, U.S Patent NO. 6,025,050, Currie et al, U.S. Patent No. 5,429,854 and Vinson et al, U.S. Patent NO. 5,830,317. US '169 discloses a scrubbing product comprising a plurality of plies some of which have abrasive properties. US '199 327 differs from the claimed invention because it does not teach perforating the plies. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc. It would have been obvious to one of

ordinary skill in the art at the time the invention was made to have perforated the layers of US '169, motivated by the expectation that this would allow the controlled release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing cellulosic fibers, it does not teach employing high yield cellulosic fibers. Vinson teaches at col. 2, lines 28-35, that high yield cellulosic fibers such as mechanical or chemi-mechanical pulps can be used to replace virgin chemical pulp fibers in order to reduce consumption of forest products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted high yield fibers for the cellulosic fibers of EP '463, in order to reduce consumption of forest products.

This is a provisional obviousness-type double patenting rejection.

27. Claims 1-14, 16-21, 23, 25-53, 55-67 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-131 of copending Application No. 10/321,831 in view of EP 066,463 . in view of Srinivasan et al, U.S Patent NO. 6,025,050, Currie et al, U.S. Patent No. 5,429,854 and Vinson et al, U.S. Patent NO. 5,830,317. US '831 discloses a cleaning sheet comprising a plurality of plies including an abrasive layer and cellulosic layers. US '831 differs from the claimed invention because it does not disclose perforating the plies. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have perforated the layers of US '831 motivated by the expectation that this would allow the controlled release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing cellulosic fibers, it does not teach employing high yield cellulosic fibers. Vinson teaches at col. 2, lines 28-35, that high yield cellulosic fibers such as mechanical or chemi-mechanical pulps can be used to replace virgin chemical pulp fibers in order to reduce consumption of forest products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted high yield fibers for the cellulosic fibers of EP '463, in order to reduce consumption of forest products.

This is a provisional obviousness-type double patenting rejection.

28. Claims 1-14, 16-21, 23, 25-53, 55-67 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-132 of copending Application No. 10/036,736 in view of EP 066,463 in view of Srinivasan et al, U.S Patent NO. 6,025,050 ,Currie et al, U.S. Patent No. 5,429,854 and Vinson et al, U.S. Patent No. 5,830,317. US '736 discloses an absorbent material comprising a plurality of plies of tissue paper. US '736 differs from the claimed invention because US '736 does not disclose perforating the layers. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc. It would have been obvious to one of ordinary skill

in the art at the time the invention was made to have perforated the layers of US '736, motivated by the expectation that this would allow the controlled release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing cellulosic fibers, it does not teach employing high yield cellulosic fibers. Vinson teaches at col. 2, lines 28-35, that high yield cellulosic fibers such as mechanical or chemi-mechanical pulps can be used to replace virgin chemical pulp fibers in order to reduce consumption of forest products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted high yield fibers for the cellulosic fibers of EP '463, in order to reduce consumption of forest products.

This is a provisional obviousness-type double patenting rejection.

29. Applicant's arguments filed 5/20/10 have been fully considered but they are not persuasive. Applicant argues that apertures comprising a fused periphery would prevent the active ingredients of EP '463 from being able to pass through the apertures upon use. However, neither the instant claims, nor Srinivasan claim or teach a fused periphery. Srinivasan is relied on for the teaching at col 1, lines 30-35 which states that it was well known and conventional in the art to use heated pins to form apertured nonwoven fabrics. The rejection does not suggest forming the fused apertures as set forth in the body of the Srinivasan reference. The rejection clearly points to the background of the art section of the Srinivasan reference, which teaches that using heated pins to form apertures in nonwoven fabrics was known. Therefore, the argument that Srinivasan teaches forming fused rings and thus would not have been combined with EP '463 is not persuasive, since Srinivasan is relied on for the teaching that it was known in the art to use heated pins for forming apertured nonwoven fabrics as set forth in column 1 of the reference and not for the teachings regarding the particular method of aperturing taught in the body of Srinivasan reference. The instant claims as amended recite fusing adjacent cellulosic webs due to the aperturing process. This limitation also does not require a fused periphery for the apertures, but rather requires some fusing between adjacent layers. As noted with regard to the 112 rejections, the claims as written do not recite any fusible elements and cellulosic fibers are not per se fusible without the addition of a fusible component. However, EP '463

does include thermally fusible components in the form of at least the more abrasive polymeric fibers and the film layers. The use of hot pins would provide for at least some fusing between two adjacent cellulosic layers, but there is nothing on the record to establish that the hot pins would form a completely sealed or fused periphery. Further, as noted above, with regard to Srinivasan, '050, while Applicant is arguing about what the body of the reference is discussing, Srinivasan is relied on for the teaching that it was well known and conventional in the art to use hot pins to form apertures. It is not relied on for the teachings regarding the use of calendaring, heat and pressure with regard to the particular materials in Srinivasan to form the particular apertures discussed in Srinivasan. Further, it is noted that the materials which are used in Srinivasan are different than those set forth in EP '463, in that EP '463 is drawn to cellulosic layers having film interlayers and more abrasive polymeric fiber surface layers, while Srinivasan comprises all polymeric fibers. Therefore, the argument that employing the hot pins taught in the background of the art section of Srinivasan would destroy the intended purpose of the EP '463 sheet is not persuasive.

30. Further, in response to applicant's argument that the apertures formed in Currie do not extend into other layers, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Currie teaches that forming apertures in cleaning

sheets by using heated pins improves the cleaning ability of the sheet. The person of ordinary skill in the art looking at the Currie and EP '463 references would recognize that using the heated pins of Currie to form the apertures of EP '463 would enhance the cleaning ability of the sheet of EP '463. The person of ordinary skill in the art would not make the perforations in EP '463 so that they only extended into a single layer, but would instead make the perforations of EP '463 in the same manner but would have employed the heated pins in order to maintain the metered release of the active ingredients of EP '463 which the perforation produce, while also providing the additional abrasive regions which Currie teaches are the result of using the heated pins to form the perforations.

31. Applicant argues that the hot pins of Currie would form apertures which are sealed and which would prevent the flow of the active ingredients. However, the instant specification teaches aperturing to provide openings through which an additive to the cleaning sheet can flow during use. (See the specification at page 43). The instant specification teaches using hot pins. Therefore, since the same method of forming the apertures is used in the instant application and in Currie, it is not clear how the apertures in the instant application would work to allow the additives to be released during use, but the apertures of Currie would be fused and thus would not function. Further, looking at the drawings of Currie, the top and bottom of the apertures are clearly open. The active ingredients would thus clearly be able to move from the inside of the sheet to the surface and onto the sheet. Further, Applicant has not shown that the apertures of Currie would have a fused ring since, as set forth above, Applicant

uses the same method to form the perforations in the instant invention, especially since, again, the rejection contemplates employing heated pins to aperture the material of EP '463 which comprises mostly cellulosic fibers with surface polymeric fibers or films, rather than a polymeric fiber material as used in Currie. The degree of fusing will necessarily be much greater when the material is all polymeric as compared to one which comprises cellulosic fiber layers which are not thermally fusible. In Currie, a meltblown thermoplastic fiber material is being apertured with the hot pins, while in EP '463 a cellulosic multilayered material having outer polymeric fibers and inner impermeable film layers is being apertured with the hot pins. The resulting structures will necessarily be different.

32. With regard to the number of sheets, Applicant argues that the claimed number of sheets would not be the result of routine experimentation and that it does not follow that one of ordinary skill in the art would perceive a reasonable chance of success in producing an article comprising an absorbent structure having the particularly claimed number of sheets and other characteristics. Applicant argues that EP '463 teaches a closed sandwich structure comprising two substrate layers bonded together in such as way as to create a plurality of compartments and that the stated advantage of using a porous material is in the context of identifying which flexible sheet materials are suitable for use in the two substrate layers. However, EP '463 teaches that the substrate layer may be a compound substrate which comprise more than one layer, such as an outer absorbent layer and an inner impervious layer. The outer absorbent layer would function to provide absorbency and softness to the laminate. The person of ordinary

skill in the art would be able to select the appropriate number and thickness of plies for use in forming such compound layer in order to produce a material having the desired properties. Further, it is noted that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Applicant has not set forth any new and unexpected result which is produced by using the claimed number of absorbent sheets.

33. Applicant argues that adding additional layers would detract from the softness of the material. However, the use of additional layers which were loft, or soft, or creped, etc., would enhance the absorbency and cushioning properties of the cleaning sheet. Further, with regard to the use of high yield fibers, as noted above, Vinson teaches at col. 2, lines 28-35, that high yield cellulosic fibers such as mechanical or chemi-mechanical pulps can be used to replace virgin chemical pulp fibers in order to reduce consumption of forest products and therefore provides a motivation to substitute part of the fibers of EP '463 with high yield fibers. Further, it is not apparent that 5 percent of high yield fibers would have a deleterious effect on softness and might produce a loftier product due to their being less flaccid. A loftier product would have a softer, more absorbent hand.

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

The examiner's supervisor Rena Dye may be reached at (571) 272-3186.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

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Primary Examiner, Art Unit 1782

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